10

15

20

## Abstract

An optical arrangement, in particular a microlithographic projection printing installation has in particular a slotshaped image field or rotationally non-symmetrical illumination. An optical element (5) is therefore acted upon in a rotationally non-symmetrical manner by the radiation of a light source. To temper the optical element (5), a supply apparatus (1/1, 19 to 23) for gas is used. The latter comprises at Yeast one supply line (21) and at least one gas directing/device (11). The latter is aligned relative to the optical element (5) and controllable in such a way that the gas is directed by the gas directing device (11) towards the optical element (5). The volumetric flow of the exiting gas therefore has a magnitude and spatial distribution (17), which are adapted to the intensity distribution (6) of the radiation. virtue of such tempering, rotationally non-symmetrical

light-induced image defects in the optical element (5) are

(Figure/2)

avoided or compensated.